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| EXAMINER COLEMAN, RYAN L | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1714 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DBRIPDocket@dbp.com

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Advisory Action
Before the Filing of an Appeal Brief

Application No.

10/551,281

Applicant(s)

YAMAMOTO ET AL.

Examiner

RYAN COLEMAN

Art Unit

1714

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 September 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(g).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____
Claim(s) objected to: _____
Claim(s) rejected: 1 and 2
Claim(s) withdrawn from consideration: 3-6 and 11-22

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Michael Kornakov/
Supervisory Patent Examiner, Art Unit 1714

/RLC/
Ryan L. Coleman, patent examiner
Art Unit 1714

Continuation of 11, does NOT place the application in condition for allowance because: applicant's arguments filed 9/14/2011 are not persuasive. Applicant argues that "Lee fails to disclose or render obvious that the semiconductors and their soon-to-be-discharged contaminants may not be below the horizontal conduit or outside the contended intermediate section". However, applicant's claims don't specify that solid matter cannot be stored outside of the intermediate section, and therefore, applicant's argument is not convincing because applicant is arguing more narrowly than is warranted by the claim language.

Applicant argues that "Lee does not disclose or render obvious that the chemical is supplied only to the nozzles below the horizontal conduit". However, applicant's claims don't exclude providing liquid from sections other than the claimed "lower section", and therefore, applicant's argument is not convincing because applicant is arguing more narrowly than is warranted by the claim language.

Applicant argues that Lee teaches causing a vortex of chemical already in the bath - not a spiral flow of the liquid provided by the nozzles. However, Lee teaches the liquid sprayed from nozzle 21 causes a vortex of liquid in the bath, and this vortex of liquid in the bath is considered to include liquid sprayed from the nozzle because liquid sprayed from the nozzle was sprayed into the bath.

Applicant argues that "the cited portions of Lee do not disclose or render obvious that the nozzles provide a spiral flow of chemical from a lower section to an intermediate section by increasing a liquid volume". However, Lee teaches supplying the liquid chemical to the nozzles located in the area beneath the horizontal conduit in order to contribute to making a vortex flow (applicant's "spiral flow") of liquid chemical within the treatment bath (Col. 5, 14-37 and Col. 9, 39-45; Figure 10). In the generation of the vortex flow within the treatment bath, the vortex flow is considered to be provided "from said lower section to said intermediate section" because nozzles are arranged from below the horizontal conduit that supplies liquid chemical to the spray line to above the horizontal conduit that supplies liquid chemical to the spray line (Figure 10), and when the nozzles begin to inject liquid chemical into the treatment bath in order to generate the vortex flow, the volume of liquid injected into the treatment bath (applicant's "a liquid volume") increases.

Applicant argues that "no portion of Lee discloses or renders obvious that the nozzles produce a vortex flow that is provided from a lower section to an intermediate section, and the Examiner does not cite any portion of Lee that supports his contention". However, it is the examiner's position that since the nozzles are arranged from the lower section of Lee's bath to the intermediate section of Lee's bath and since Lee teaches that such a nozzle ejects liquid in order to create vortex flow in the bath, the arranged nozzles will create vortex flow from the lower section to the intermediate section because there is no reason to think that one or more of the nozzles would create vortex flow while the remaining nozzles would somehow not contribute to making create vortex flow despite the fact that nozzles in the lower section and intermediate section are arranged in a similar manner relative to wafers and liquid in the bath.

Applicant argues that "the rotation of the wafer guide opposite to the vortex flow of Lee prevents the vortex flow from being provided from a lower section to an intermediate section". This argument is not persuasive because applicant does not explain any reason (supported by Lee or otherwise) why rotation of the wafer guide opposite the vortex flow of Lee prevents the vortex flow from being provided from a lower section to an intermediate section.

Applicant argues that "because Lee describes that the wafers 1 are immersed in the chemical 3, Lee cannot disclose or render obvious the step of providing a liquid from a lower section to an intermediate section by increasing a liquid volume, as required by claim 1". This argument is not persuasive because although Lee teaches immersing the wafers in the liquid, Lee also teaches ejecting liquid from nozzles 21 such that the volume of liquid injected into the treatment bath (applicant's "a liquid volume") increases and the vortex flow of Lee is created.

Applicant argues that the examiner does not cite any portion of Lee that teaches that the volume of liquid injected into the treatment bath increases. However, Lee teaches spraying liquid from the nozzles when the wafers have been immersed in the tank (Col. 5, 24-48), and the change to spraying liquid from the nozzles 21 from not spraying liquid from the nozzles 21 is considered to represent and increase in the volume of sprayed liquid.